prising gelatin and nucleic acids, wherein a targeting ligand is attached to said microparticles' surface, said targeting ligand binding to the surface of said cells to be transfected, whereby the cells are transfected with the nucleic acids.

28. A method for introducing nucleic acids into cells of a mammal, comprising the steps of:

administering solid microparticles of less than 3 μm to said mammal, said microparticles comprising gelatin and nucleic acids, wherein a ligand is attached to said microparticles' surface, said ligand binding to the surface of said cells, whereby said cells are transfected with said nucleic acids.

29. The method of claim **27** or **28** wherein the said ligand is attached to said microparticle's surface by means of a linking molecule.

30. The method of claim **29** wherein the linking molecule is avidin.

31. The method of claim **27** or **28** wherein the said ligand is selected from the group consisting of: antibodies, hormones, cell-adhesion molecules, saccharides, and neurotransmitters.

32. The method of claim **27** or **28** wherein the nucleic acid is DNA.

33. The method of claim **27** or **28** wherein the nucleic acid is RNA.

34. The method of claim **27** or **28** wherein the cells are muscle cells.

35. The method of claim **27** or **28** wherein the cells are epithelial cells.

36. The method of claim **35** wherein the epithelial cells are lung epithelial cells.

37. A solid microparticle for delivery of nucleic acids to and transfection of target cells comprising gelatin and a polyanion consisting of nucleic acids, wherein a molecular species is attached to the surface of said microparticle, wherein the molecular species is selected from the group consisting of a targeting ligand and a linking molecule, wherein the linking molecule is selected from the group consisting of avidin, biotin, and staphylococcal protein A, and further wherein the microparticle is solid and is less than 3 μm.

38. A method of forming solid microparticles for gene delivery and transfection of target cells, comprising the steps of:

forming solid microparticles by coacervation of a polyanion consisting of nucleic acids and gelatin, wherein the gelatin is at a concentration between 2% and 7%; and,

adhering a molecular species to the surface of the microparticles wherein the molecular species is selected from the group consisting of a targeting ligand and a linking molecule, wherein the linking molecule is selected from the group consisting of avidin, biotin, and staphylococcal protein A.

39. A method for introducing nucleic acids into cells, in vitro, comprising the steps of:

incubating (a) cells to be transfected with (b) solid microparticles of less than 3 μm, said microparticles comprising gelatin and a polyanion consisting of nucleic acids, wherein a targeting ligand is attached to said microparticles' surface, said targeting ligand binding to the surface of said cells to be transfected, whereby the cells are transfected with the nucleic acids.

40. A method for introducing nucleic acids into cells of a mammal, comprising the steps of:

administering solid microparticles of less than 3 μm to said mammal, said microparticles comprising gelatin and a polyanion consisting of nucleic acids, wherein a ligand is attached to said microparticles' surface, said ligand binding to the surface of said cells, whereby said cells are transfected with said nucleic acids.

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